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LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE LUNGS.

BY W. W. GERHARD, M. D.

LECTURE XII.

GANGRENE.

I HAVE now gone through pneumonia in all its forms, and shall proceed to the consideration of an affection, which, though not very frequently met with, still requires a notice in this place: I refer to gangrene of the lungs. This, like gangrene in other parts of the body, may occur either as a primary or secondary affection. When primary, it is probably owing to an alteration in the condition of the blood, which, being rendered unfit for nutrition, can no longer support the vitality of the parts. It occurs as a secondary affection in cases of asthenic pneumonia. The anatomical characters of the gangrene are nearly the same in both forms, although, when it is in its secondary form, the tissue is at first hard and congested, and is seated in the midst of an inflamed parenchyma, while, in the primary form, it is merely infiltrated with a thin, serous liquid, which is evidently in a state of incipient gangrene, and gives rise to the fœtor of the breath met with even in the first stage of the affection.

In the second stage, the tissue begins to break down, and gangrenous matter is expectorated; next, the bronchial tubes slough off, and nothing is left in a sound state but the vessels: these resist the destructive process for a long time; and on examination after death they are usually seen traversing the cavity; however, after a while, they, too, are destroyed, and their destruction sometimes gives rise to a hæmorrhage which destroys the patient, although generally the blood has ceased to circulate through them before they slough, and little or no hæmorrhage ensues. The sputa and breath in this stage of the disease are pathognomonic; they are both exceedingly fœtid, and the disease can, on this account, be easily distinguished from any other. There are two varieties of the gangrenous sputa: one consists of a dark thin liquid, which somewhat resem-

bles tobacco juice, or liquorice, occasionally containing small pieces of black, gangrenous lung; the other consists of a grayish-yellow pasty fluid, which is probably a mixture of pus and gangrenous liquid; the latter occurs most frequently in cases following pneumonia; both, however, are extremely fœtid, though the odour differs slightly. In some cases of phthisis the sputa resemble the second variety, and it is probable that in these cases the tuberculous portion of the lung becomes gangrenous.

The third stage begins with the formation of a cavity, which continues to increase for some time, and may go so far as to involve a lobe, or even nearly the whole of one lung. After the formation of the cavity, the sputa are nearly the same, consisting of a thin, fœtid liquid, frequently stained with blood, which flows from the sphacelated vessels. When the case terminates fatally, the sputa increase in quantity, and the patient gradually sinks until he is completely exhausted, and death ensues. But when the disease terminates favourably, the following changes take place: the gangrenous portion of the lung is first circumscribed by a membrane which separates it from the surrounding healthy tissue. As the gangrenous portion sloughs away, this membrane is left as a lining to the cavity, and secretes pus; therefore, we find the latter fluid at first mixed with the gangrenous sputa, and supplanting it entirely when the whole of the diseased portion has been removed. As the inflammation subsides, the membrane assumes the character of a mucous membrane, and at last becomes similar to that lining smaller tubes and air-vesicles, which resembles very closely the serous membranes in the delicacy of its texture. If the cavity is excluded, the lining membrane being no longer exposed to the stimulus of the air, loses its mucous character entirely, and we find a cyst lined with a membrane, which is almost serous, and nearly similar to that found in the brain and elsewhere after cicatrization; this may continue during the remainder of the existence of the individual, or be gradually obliterated by the formation of cellular tissue.

After the entire cure of the gangrene, the tissue involved is more or less dense, and contains less than the natural proportion of air.

The local signs of this disease are the cough, expectoration, and fœtor of breath. The cough at first resembles that of ordinary catarrh, but as the disease advances, it becomes looser and paroxysmal in its character, which is produced by the accumulation of fluid in the bronchial tubes requiring a violent effort to throw it off, which ceases as soon as this is accomplished, and the paroxysm does not recur until the accumulation of fluid again renders this effort necessary. These fits of coughing are often extremely distressing to the patient.

The physical signs are, in the first stage, feeble respiration and a moist rhonchus, generally either the mucous or sub-crepitant; the percussion is either natural or a little dull. They are not, therefore, characteristic.

As the disease advances, we find the usual signs of a cavity, viz.: cavernous respiration, a loose gurgling and cavernous resonance of the voice, or pectoriloquy; the last, however, is not so clear as in phthisis, unless the cavity should be large, and near the surface of the lung, for the quantity of liquid in the cavity, and the softness of its parietes, deaden the resonance. When cicatrization takes place, we find merely feebleness of respiration, which gradually diminishes, but does not entirely disappear. If the liquid is discharged from the cavity in its early stages, the cavernous respiration and resonance of the voice are rendered much clearer.

The general signs are the following: there is usually considerable fever during the progress of the disease, with a small, frequent, irritable pulse; sometimes the pulse is exceedingly feeble. The fever is only important as it is connected with the prognosis, which is very unfavourable when the fever is high, and the gangrene is progressing; but if the disease do not advance, the fever is unimportant. There is an almost complete loss of appetite, produced by the nauseating character of the gangrenous liquid which is swallowed by the patient, who often has diarrhœa from the same cause. The skin is pale, and usually lead-coloured in the advanced stage, which is observed in almost all cases of gangrene, what-

ever part of the body may be affected. Very often there is extreme dyspnœa.

Prognosis.—As an ordinary result, about one-half of those attacked will die. In hospitals the mortality is rather greater, amounting to three-fifths, while in private practice it is probably about two-fifths.

Diagnosis.—The only pathognomic characters of gangrene, are the fœtid breath, and expectoration of the patient. When these occur as an acute disorder, or supervene suddenly upon a chronic one, they are quite characteristic of the disease. If they occur slowly, and continue for a long period, they depend upon a vitiated secretion of the bronchial membrane, caused by chronic bronchitis; but this either never occurs in acute inflammations of the lungs, or is so rare as not to be taken into the account. Numerous as are the cases of gangrene which I have met with in hospital practice, I do not recollect a case in which the fœtid sputa arose from simple acute bronchitis. The other signs of the disease are common to it and some other affections of the lungs; but the rapidity of the softening, and the formation of a large cavity in a short period, occur so seldom except from gangrene, that these signs are very good indications of the disease.

Causes.—About these it will be proper to say a word or two before going farther. The proximate, and at times mainly predisposing cause of this affection, is an altered condition of the blood, which becomes thin, and probably is vitiated in some unknown manner, which frequently coincides with a local inflammation. The ultimate causes are intemperance, indulgence in food of an unnutritious nature. An attack of some acute disease, most frequently pneumonia, is the immediate exciting cause in rather more than half the cases: in others, the disease is general, and arises from the fluids alone. In both cases gangrene of the lungs at times follows that of other parts of the body.

Treatment.—This is not in most cases antiphlogistic, but supporting in its character, tonics and stimulants being required. When you detect the occurrence of gangrene, you must use all the means that you possess to support the strength of the patient, who is in a short time very much prostrated; for this purpose you must administer stimulants and tonics, with the free use of porter, wine, and nutritious food. This is the best and almost

only mode of treatment. There is a remedy, however, which I have used in addition, and, I think, with some benefit, viz. chlorine; I give from ten to twenty drops of the solution of the chloride of soda every three or four hours; if, however, there is disposition to diarrhœa in the patient, he will bear very little of it. In addition to the internal use of chlorine, I place near the patient's bed, vessels containing chloride of lime, which adds much to the comfort of the patient and his attendants. Opium is necessary in some cases of gangrene of the lungs, to check the violent paroxysms which return so frequently as to fatigue the patient extremely; but it should be given sparingly, for it has the disadvantage of checking the secretions of the lungs; hence, it should be administered in the smallest possible quantity, and even then may be combined with senega and ipecacuanha, unless the nausea should be excessive.

The indications for the treatment of gangrene are, therefore, extremely simple; a generous, supporting diet and treatment, with blisters, and, in a few cases, cupping to the chest, to check the intercurrent and accompanying inflammation, constitutes our main reliance, but the chances of success are greatly increased by the accessory remedies, some of which I have mentioned. The absolute antiphlogistic treatment is decidedly bad, and of the remedies which are classed under this head, none is more positively mischievous than mercury and its various preparations.

ORIGINAL COMMUNICATION.

Anomalous Case of Periodical Suspended Perception. By JOSEPH JAMES RIDLEY, M. D.

To the Editors of the Medical Examiner.

The design of this paper is to present a concise statement of an interesting pathological phenomenon. I shall not attempt a philosophical dissertation on the rationale of its origin, progress, and spontaneous decline: I frankly confess that my inability satisfactorily to explain it has induced me to publish this memoir.

Harry, a man servant of Mrs. W., of N. C., was from his youth of a strong and vigorous constitution, plethoric habit, and in the intervals of his paroxysms of good general health. In about his thirty-fifth year, Doctor R. was requested to see him in a paroxysm simulating apoplexy. The remedies for apoplexy were used in vain. He lay perfectly torpid and insensible; the symptoms became hourly more threatening until recourse was had to cleansing

the primæ viæ. The administration of a laxative restored him to sensation, and with the restoration of his perceptions all symptoms of disease disappeared. In a few days he had a second attack; the symptoms as before. The same treatment relieved him. His mistress, not famed for abundance of the "milk of human kindness," suspected his honesty, and cruelly scourged and burnt him in his paroxysms without making any impression upon his perceptions. His paroxysms periodically returned, and became more frequent gradually. He was likely to prove an expensive piece of property; and his mistress, resolved to incur no more expense, sold him at a reduced price to Dr. R., who, upon taking him home, essayed every power of the medical art to ascertain and remove the disease. He discovered that in his paroxysms the abdomen was uniformly extremely tense; the colon was, to all appearance, the seat of the disease. Upon making use of friction upon the abdomen, a vast quantity of flatus was eructated, and the urgent symptoms gradually gave way. After discharging an inconceivable quantity of gas, his senses returned; his paroxysms gradually became quotidian. Dr. R. was forced to take him with him whenever he was called from home, about the periodical recurrence of the paroxysm. The longer the paroxysm continued, the more difficult was it to restore him to sensibility. A most remarkable fact was the circumscribed spot upon which friction afforded relief; a five franc piece would cover the space on which it was necessary to rub; friction on any other part of the abdomen was certain to aggravate the symptoms fourfold. This spot was, I think, about four or six lines to the right of the umbilicus. A gentleman visiting at Dr. R.'s, upon one occasion endeavoured to relieve Harry in one of his paroxysms, having seen him speedily relieved by Dr. R. in so simple a manner. He was surprised and alarmed to see that, instead of affording relief, the man became every moment worse; and he hastened off after Dr. R., thinking that he was "in articulo mortis."

Another remarkable fact connected with this case, was the incredible force of his eructations: when properly rubbed, the flatus would escape with such force as to be heard one or two miles. I am aware, Messrs. Editors, that this seems rather a Munchausen story; it transcends the bounds of credibility, I know. It is difficult to believe a statement conflicting so palpably with the results of our observation. The lungs had no part in the production of the report; it was exclusively from the stomach and intestines. The statement, in its general outline, would be avouched by a whole neighbourhood, and several physicians, to whom the case was one of inexplicable difficulty and interest. When the paroxysm was coming on, before the power of locomotion was suspended, he would wander about, regardless of those

things that affect the senses. Upon one occasion he was in the act of jumping into a well, and was most narrowly and opportunely rescued. Upon the return of sensibility, he was like a man suddenly aroused from sleep, before his perceptions are fully brought into exercise.

It is remarkable that neither diet, climate, labour, care, nor any thing else ordinarily connected with etiology of disease, had any influence over this case. His paroxysms uniformly came on independently of these things.

The disease lasted several years and finally exhausted itself. I think it probable that the proximate cause of the stupor was the pressure of the gas collected in the stomach, and colon upon the solar plexus, called by some physiologists the "brain of the stomach." As far as my investigations have extended, this case is without a parallel in pathology. If I had ever heard of gastro-enteric apoplexy, I should have some name for the disease. The symptoms in the paroxysm were clearly apoplectic; the full slow pulse and stertorous breathing, &c.

If by this paper, Messrs. Editors, a spirit of inquiry among the profession should be evoked, a solid benefit will have been done the cause of pathology. There are important facts evolved which, philosophically investigated, may throw much light upon vital phenomena. I commend the case to the profession and hope it may call out some reflections elucidating the difficulty; the points of difficulty that arise are, the periodicity of recurrence; the stupor dependent upon gastric tension, the independence of the paroxysms of all the ordinary causes of disease; the necessity of applying friction to a circumscribed spot; the power of locomotion in the incipency of the paroxysms remaining whilst perception was suspended; the force and loudness of the eructations, (much beyond the power of his lungs,) the final declension and disappearance of the disease, and, sirs, upon reflection, many other points of interest arise, challenging an elaborate investigation.

Forsyth, (Geo.) Dec. 12, 1840.

This is certainly a curious case. We do not remember to have met with any perfectly similar to it, although it is more nearly allied to hysterical and nervous disorders than to any others. These affections are in their nature extremely changeable, and their characters are rarely precisely alike. The view of the pathology of the disease given by our correspondent is probably the correct one, and the simple treatment of the disorder proves that there could have been little or no organic mischief. In cases of an analogous nature, we rely with great confidence of success upon injections of *lac assafoetidæ*, and half or an ounce of oil of turpentine. This remedy is by far the best in all cases which are classed under the term of

nervous apoplexy; no revulsive is more powerful, and more perfectly harmless.

We agree with our correspondent that the case is highly interesting, and add our wishes to his that the recital of it may elicit others of a similar character, which would be the best means of throwing light upon it.—[Eds.]

BIBLIOGRAPHICAL NOTICES.

Introductory Lecture on Anatomy. By THOMAS MILLER, M. D., Professor of Anatomy and Physiology, Columbian College, D. C. Delivered on Thursday, the 5th of November, 1840. Washington.

THIS is a well arranged, well written, and instructive lecture, portraying to the student, step by step, the obstacles which have already been surmounted in the pursuit of anatomy, captivating his attention by allusion to some of the most interesting points of physiology—exciting his ambition by exhibiting how much yet remains to be effected, and how completely it is within the power of each by industry to aid in its further advancement.

After a rapid survey of the wonders of organisation, its gradual complication in the ascent from the lower to the higher orders of beings, the almost imperceptible change from vegetable to animal life, rendering the line of separation equivocal, the Lecturer enters upon the study of man, and exhibits forcibly the necessity of frequent dissection as an essential element in its pursuit—not content with proving that the practice of medicine is dependant upon a knowledge of anatomy, which constitutes its only true basis, and showing *a fortiori* its importance to the surgeon, he maintains that the value of anatomy is not limited to our own profession, that it is necessary to the sculptor and painter, and useful to the jurist—he even asks, "if it is not to the interest of the artizan to understand the most completely constructed machine in existence?—to have a perfect model of mechanism?" Hé repels successfully the argument, that many practice efficiently without its assistance, and combats as superstitious the popular prejudice which has generally existed against dissections, dating a new era in medicine, from the permission to prosecute them, accorded by the Alexandrian school. These points are all ably illustrated, and we

only regret that the limits of a weekly journal will not permit us to enter more fully into their detail.

A Memoir of the Life and Character of the late Joseph Parrish, M. D. By GEORGE B. WOOD, M. D.

THIS memoir is a just and beautiful tribute to the memory of departed excellence—the portraiture of a wise and virtuous life, executed with taste, fidelity, and feeling. To the profession of this community it is an acceptable, because a faithful sketch of one who was long honoured and respected among them, and it cannot fail to be perused with general interest as an elegant and attractive biography. The late Dr. Parrish was one of the oldest and most reputable practitioners of Philadelphia. Unconnected with any of its schools, his reputation was not much extended beyond the limits of the immediate sphere of his usefulness; but here he for a number of years occupied the first rank in the estimation of the community and his brethren. He was distinguished as an original thinker, an acute observer, and a sagacious, ready, and very successful practitioner. He was a popular teacher and lecturer, and the private instructor of a large number of the most respectable physicians of Philadelphia, among them, his biographer, who was a favourite pupil and intimate and confidential friend. In professional intercourse, Dr. Parrish was a model—free from jealousy or bitterness, undeviatingly straight-forward, scrupulous, and courteous. In private life admirable, he offered a rare combination of virtues and talents, and ran a career eminently useful and honourable, to which we who survive him cannot revert without pleasure and profit.

Dr. Parrish was born in the year 1779, of a respectable Quaker family. He had a strong natural bias for the study of medicine, for which he abandoned a mechanical employment in which his father had placed him. In his twenty-second year he entered the office of the late professor Wistar, and received his degree of doctor of medicine in the University of Pennsylvania in 1805. Aided by the patronage of the religious society of which he was a member, his professional skill and pleasing address rapidly brought him into a valuable practice, which he enjoyed for a long period, beloved by

his patients, respected and consulted by his professional brethren. The career of Dr. Parrish was rather a useful than a brilliant one. His was a character valuable in its day, but not destined to exert a marked influence upon the future. In the language of his biographer,

“He was characterized by quick perception, an excellent memory for facts, and an unusual correctness of judgment. Little that he had the opportunity of hearing or seeing escaped his observation, and what he had once stored up in his mind was ever afterwards at his command. He had little imagination, and was without the taste and perhaps the ability for abstract and speculative reasoning, which too often busies itself in constructing edifices of conclusion upon slender premises, and wastes in vain attempts to establish general truths the time which would be better spent in collecting facts. But he was gifted, in an extraordinary degree, with that practical faculty which turns to useful account whatever comes within its reach; which, by a sort of intuition, distinguishes a truth amidst the rubbish by which it is concealed, and out of a labyrinth of conflicting means selects that which most surely leads to the end in view. His was, indeed, eminently a practical mind, looking always to acts rather than to opinions, and disposed to measure the value of any system or project by its probable bearing on the condition of society or individuals, not by its mere beauty, or the ingenuity displayed in its invention.”

As a practitioner, Dr. Parrish was original and eminently successful. In many diseases, his plan of treatment was in decided opposition to the prevailing fashions of the day. In pulmonary consumption he abandoned the antiphlogistic for the opposite system of generous living and vigorous exercise in the open air—and with the happiest results. Shortly after his entrance into business,

“The great typhus epidemic, which so long scourged this country, made its appearance in Philadelphia. At its first appearance, this complaint was not fully understood. Physicians were not generally prepared to recognise a disease of debility associated with apparently violent inflammation, and were in the beginning too apt to overlook the tendency to prostration which lurked fatally beneath the show of excitement. The attention of Dr. Parrish had been strongly directed to the subject by the perusal of a treatise by Dr. North, who had seen much of the disease in New England, and who strenuously advocated the stimulant treatment. His aversion to theory in medicine left him open to the evidence of facts, however opposed to prevailing opinions; and he was quite prepared to encounter the disease by methods which had stood the test of experience, rather

than by those which analogy alone would appear to indicate. The epidemic approached Philadelphia through New Jersey, and hung for a while over the opposite shore of the Delaware, before it burst upon our city. The inhabitants were alarmed by reports of a terrible disease in the town of Camden, which appeared to bid defiance to medicine. Dr. Parrish was called in to the aid of the physicians of the neighbourhood. At the period of his first visit, seven cases had occurred, and all proved fatal. He was told that the disease was of an inflammatory nature, and had been treated by the lancet and other depletory measures. Its malignant aspect at once struck his attention. He saw through the veil of inflammation which it had thrown over its ghastly features, and beheld the deadly weakness beneath it. He advised an immediate abandonment of the lancet, and the substitution of an actively stimulant treatment. The effects were most happy. Numbers now got well where before all had died. A disease supposed to be almost incurable was found to be, in the great majority of cases, under the control of medicine. The terrors of the first awful reports gave way before the happier intelligence which followed; and the newly inspired confidence was directed especially towards the author of the change. When the epidemic reached the city, Dr. Parrish found himself in the midst of an ample business; and the devotion which he paid to the sick, and the skill and success which marked his efforts, gave him a place in the opinions and affections of his fellow-citizens which he did not lose when the immediate occasion ceased. His views of the disease and its treatment met with much opposition; and some decision of character was required to carry them into effect. On one occasion, a physician in attendance with him upon two cases of the disease in the same family, believing them to be highly inflammatory, strongly urged the employment of the lancet, and upon being resisted by Dr. Parrish, who felt convinced that the proposed remedy would be fatal, retired from attendance, leaving the whole responsibility with his colleague. The ground of difference was known, and the eyes of the whole neighbourhood were directed with intense expectation towards the result. 'You cannot conceive,' said Dr. Parrish, in relating the circumstance to his pupils, 'the anxiety I experienced.' Happily, however, both patients recovered, and the event contributed to extend his reputation."

Like his cotemporary, Physick, Dr. Parrish was distinguished as a surgeon as well as a physician. For several years he filled the posts of surgeon to the Philadelphia Alms House and Pennsylvania Hospital, and was highly thought of, for judgment and operative skill.

Dr. Parrish closed a long and honourable career, in March, 1840, meeting death with the

calmness of a philosopher and resignation of a Christian. A considerable fortune was the result of his professional accumulation. Better than these, he left behind him an unstained reputation, and a memory, which is cherished for the purity, generosity, and single-heartedness of his character. Many traits illustrative of these amiable qualities are recorded by Dr. Wood. From them, we select the following:

"A striking instance of the influence of a sense of duty over his conduct, was in his declining to take the office of Professor of Anatomy in the University of Pennsylvania, which he believed, and I have no doubt upon the best grounds, to have been at one time within his reach. I have said that he was naturally fond of distinction; and this was a post to which he believed himself competent, and in which he would probably have attained much credit and a wide-spread popularity. An ordinary person, in his situation, would have seized upon it with avidity. But he regulated his conduct by a higher standard than that of personal gratification. He believed that a station in the University would bring what might be considered his duty towards the Institution into frequent conflict with his peculiar religious sentiments and habits. He was unwilling to expose himself to temptations, likely to loosen his hold upon those principles which he conceived to be the anchor of his safety. To his intimate friends, who urged him to avail himself of this opportunity, he was wont to answer, in his naive and cheerful but impressive manner, by pointing to his breast, and observing that he wished to have all comfortable there; that no worldly advantages would be any compensation for the loss of that heart-felt satisfaction which attended obedience to the intimations of his inward monitor. This was, indeed, the great rule of his life. Believing most fully in that fundamental Quaker doctrine that the Divine Spirit communicates directly with men, that from this source is the 'true light which lighteth every man that cometh into the world,' and that consequently every individual has a sure counsellor in his own breast, which, if consulted in the right spirit, will never fail or mislead him; he was in the constant habit of looking inward for intimations of duty, and of submitting to them implicitly, however opposed to his apparent worldly interests. Now, whatever opinion may be entertained of these intimations, whether we agree with the Friends in considering them as of supernatural origin, or believe them, as most men do, to proceed from the natural workings of the mind, under the influence of education, habit, reason, and conscience, it is nevertheless the fact that, in any case of morals, an individual, brought up in a civilized and Christian country, will seldom go far astray, who uniformly consults them with a single eye to the truth. Dr. Parrish believed that he found

peace and safety in this rule of action: and no merely worldly temptation was strong enough to remove him from any position which he had taken in conformity with it. The same motives which induced him to forego the opportunity of obtaining a professorship in the University, caused him also to decline offers, and resist solicitations afterwards made to him to join other incorporated medical schools. 'My bark,' he used to say, 'was made for quiet waters.'

Dr. Wood thus beautifully sums up his sketch of this truly admirable character:

"Firmness and courage were also among the moral qualities which distinguished Dr. Parrish. With all his kindness of heart and disposition to please, though no man was less tenacious of opinion for opinion's sake, and none more disposed to yield in trifles to the convenience or even caprice of others, yet in all affairs which involved a point of principle he was immovable, and did not hesitate to do or to avow what he believed to be his duty, whatever personal injury or odium might accrue.

"Thus morally courageous, he was not wanting in that less noble attribute which leads to contempt of danger. During an intimate intercourse of many years, I do not remember to have seen him, in any one instance, exhibit the least evidence of bodily fear. In pestilence he was among the foremost at the post of danger. During the prevalence of yellow fever, I have seen him by day and by night, without the expectation of pecuniary recompense, and at a period of his professional life when he had nothing further to wish for on the score of reputation, enter the deserted precincts of infection, and expose himself to the most imminent danger, in attendance upon individuals who had been seized by the disease while lingering behind the fleeing population. On the bed of sickness and death, with a clear knowledge of his danger, he was quite composed, and never exhibited any of those fearful apprehensions which sometimes beset the closing scenes even of those best prepared to die. Such, indeed, was his natural temperament, that danger attended with the opportunity for exertion, seemed to have charms for him; and I have heard him more than once say, not in a boastful spirit, but quite naturally, as if merely giving expression to the feelings of the moment, that, were he not opposed on principle to all wars and fightings, he should take a stern delight, in a cause which he could approve, in leading the forlorn hope of an assault."

"But, while thus marked with striking traits, he was not without the graces also of character. His amiableness of temper, candour and openness of heart, liberality of sentiment, charity for the failings of others, warmth and constancy in friendship, and love of order and punctuality, were often beautifully illustrated in his daily intercourse, and contributed to give

him the charm of manner which rendered his presence every where so acceptable. The real politeness for which Dr. Parrish was remarkable, was in no respect the result of cultivation, but flowed directly from the fountain of his own kindly feelings. It was the genuine coinage of nature, which art may counterfeit, but seldom equals. With a self-possession resulting from his utter want of pretension and the perfect simplicity of his character, and entirely free from that sort of diffidence of manner which is the frequent result of pride, he was never awkward in speech or movement, and in all the intercourse of life exhibited the deportment of a true gentleman."

"The almost unprecedented array of his fellow citizens of all classes who attended his remains to the grave, the general expression of regret for his loss, and the measures taken by the various bodies to which he belonged, to procure some public commemoration of his worth and services, are evidences of a general esteem and affection such as seldom fall to the lot of individuals unconnected with public life. Perhaps no one was personally known more extensively in the city, or had connected himself by a greater variety of beneficent service with every ramification of society. It is true that no marble has been erected over his remains, and that the very spot where they are laid, will soon be undistinguishable to every eye save that of conjugal or of filial love; yet the remembrance which he has left behind him, the only monument which the rules of his unostentatious sect allow, is far more precious than the praises of carved stone, which gold may purchase or power command."

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INSANE POOR.

OUR readers are aware that within a few years past the number of asylums for the insane poor has been gradually increasing, and that each state has felt the necessity of providing a place of refuge for the insane who are past recovery, and of treatment for those whose disease is still curable. The county almshouses, or the general hospitals designed for the treatment of medical and surgical diseases, are notoriously unfitted for the treatment of lunatics. That is, for the treatment of those whose condition requires the adoption of moral means, and of soothing influences, which can only be secured in an asylum specially devoted to the insane, and furnished with the necessary space, and means of amusement and relaxation.

In the state of Pennsylvania, it is very pro-

bable that an asylum will soon be founded for the reception of the insane poor of the commonwealth; the necessity of it is generally admitted, and nothing but the pecuniary difficulties of the state can prevent the speedy endowment of the asylum. We do not, however, think that this delay is much to be regretted; our error is hasty, rather than slow legislative action,—and if a project of this nature be acted upon, without due deliberation, it will probably be found that the buildings are not the best adapted for the purpose, or that the rules regulating the admission of patients were defective.

The latter point is one of the most difficult to determine. Who are to be regarded as insane? This is a point full of difficulties, not merely with reference to the mental ability or disability of the patients, but whether their mental disorder is of a nature to require or justify admission into an hospital.

When the asylums are open indiscriminately to all who are deprived of their reason, the number of inmates is constantly increasing, and a strong temptation is offered to members of families to relieve themselves of the burthen of an idiotic or even imbecile member, and to support him at the charge of the public; hence, the natural effect of institutions which admit patients with little restriction, is to increase the apparent number of the insane. By restricting those entitled to admission to such as are either troublesome or dangerous to society at large, and to those whose case is still susceptible of cure, the inconvenience of public institutions ceases, and they produce decidedly beneficial results.

An institution conducted upon this restricted footing, is not attended with any great expense, and is positively required by the necessities of civilization; and we do not doubt that the different states will be provided with asylums which are large enough for the probable numbers of the insane,—for it is plainly required by ordinary principles of humanity to provide special institutions for the treatment of the insane, who require conditions which cannot be afforded by general hospitals.

We shall shortly commence the publication of a series of extracts from Dr. Meigs' obstetric case-book, classified and commented upon by the author. Upon the value of contributions of this character from such a source, it is not

necessary to dwell, feeling satisfied as we do, that we could offer nothing more acceptable to our readers.

DOMESTIC.

Introductory Lectures.—We acknowledge the receipt of introductory lectures by Professors HARVEY LINDSLEY and THOMAS MILLER, of the Columbian College, Washington, D. C. We hope, at an early opportunity, to notice them at some length.

Copying without credit.—The Boston Medical and Surgical Journal has pounced upon an accidental omission on the part of the Examiner to credit it for Dr. Dix's cases of strabismus, and makes considerable stir thereupon. We regret the omission, and believe that our previous character is a sufficient guarantee that it was unintentional. A propos of "editorial courtesy," "fair play," and "giving credit for whatever is borrowed," will our Boston friend inform us, if the articles quoted from *Bul. de l'Academ.*, *Graefe's and Walter's Journal*, *Observatore Medico*, and *Bibliothek fur Laeger*, in the number of his Journal in which the Examiner is berated, were translated and copied directly from the sources to which they are ascribed.

Connecticut Retreat for the Insane.—From the report for this institution for the year 1840, we extract some details which will be read with interest in our own and other states which have not yet followed the example of New England in providing for their insane poor.

"It is now sixteen years since the Connecticut Retreat was opened for the reception of patients.

From the reports of the physicians, it appears that on the first of April, 1840, one thousand patients had been admitted into the Retreat. About five hundred of these were labouring under some form of insanity of recent date, and brought to the institution with the expectation of benefit from the means employed for their recovery. Of this number, four hundred and fifty have been restored to reason and returned to their families, and to those stations of usefulness which they had occupied before their attack.

Of the five hundred cases of chronic insanity, a large number has been cured; many have left the institution much improved, and others remained, not for the purposes of medication,

but because they were made more comfortable there than they could possibly have been at their own homes. Even of this latter class—the forlorn hope of the institution—there have been some happy recoveries occurring, two, five, or ten years after the attack, and when all expectation of such relief had been obliterated from the minds of their relatives and guardians. Those who have witnessed these results, and those who have experienced these benefits, are among the warmest and best friends of the institution."

Dr. A. Brigham has been elected superintendent of the Retreat—an appointment well spoken of.

Philadelphia Medical Society.—At the annual election held on Saturday, 2d January, the following officers were elected for the ensuing year:—

President.

Thomas Harris, M. D.

Vice Presidents.

George B. Wood, M. D.

Robert M. Huston, M. D.

Treasurer.

J. Brewer, M. D.

Corresponding Secretaries.

B. H. Coates, M. D.

W. Poyntell Johnston, M. D.

Recording Secretary.

Joshua M. Wallace, M. D.

Orator.

Isaac Parrish, M. D.

Librarian.

J. F. White, M. D.

Curators.

Joseph Peace, M. D.

Jno. B. Griscom, M. D.

Medical Prize Questions for 1841.—*New York Prize Questions.*—The sum of fifty dollars is offered by the Medical Society of the State of New York, to the successful candidates on each of the following questions:

1st. The medical literature of *Cholera Morbus*, previous to the appearance of the epidemic Cholera. [Note. It is expected that the medical history of *Cholera Morbus* in this country will be particularly examined.]

2d. An analysis of the discoveries concerning the *Physiology of the Nervous System*, from the publications of Sir Charles Bell to the present time, both inclusive. Dissertations to be directed to Peter Van Olinda, M. D. Secretary, Albany, N. Y.

Boylston Prize Questions.—1st. To what extent is disease the effect of changes in the chemical or vital properties of the blood?

2d. The structure and diseases of the teeth, with a numerical solution of the question—can caries of the teeth be retarded by mechanical processes?

Dissertations on these subjects must be transmitted, post paid, to J. C. Warren, M. D., Boston, on or before the first Wednesday of April, 1841.

The following questions are offered for 1842.

1st. To what extent is the human system protected from small pox, by inoculation with the cow pox? Is the protection increased by revaccination; and, if so, under what circumstances?

2d. On the diseases of the kidney, and the changes which occur in the appearance and composition of the urine, in health and in disease.

Dissertations on these questions must be transmitted as above, on or before the first Wednesday of April, 1842.

The author of the best dissertation on either of the above subjects, will be entitled to a premium of fifty dollars, or a gold medal of that value, at his option.

Each dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within shall be enclosed the author's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes, viz.:

1st. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which the premiums may be adjudged.

2d. That in case of the publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

Fiske Medical Prize Questions for 1841.—The sum of fifty dollars will be awarded by the Medical Society of Rhode Island, to the author of the best dissertation on either of the following subjects, or a gold medal of equal value, at the option of the successful competitors.

1st. Spinal diseases, structural and functional. 2. Dropsy, its causes, nature, and treatment. Dissertations are to be sent free of expense, to R. Brownwell, M. D., Providence; T. C. Dunn, M. D., Newport, or J. Williams, M. D., Warren.—*American Medical Almanac.*

FOREIGN.

Lectures on Amputation and on the Nature, Progress, and Terminations of the Injuries for

which it is required. By RUTHERFORD ALCOCK, K. C. T., &c., late Dep.-Insp.-General of Hospital with the Auxiliary Forces of Portugal and Spain.—Three years ago I submitted to the profession, in a very curtailed form, some views on the questions involved in the subject of amputation, and the injuries for which its performance is required.* The opinions given were drawn from the experience of many years active service, during which large hospitals were under my sole direction and control, and sick and wounded in large numbers constantly under my observation. The principal facts and views contained in that work, found a place at considerable length in the pages of the *Lancet*; and they have since been very frequently referred to and quoted in various publications, periodical and others, as meriting some attention. In the very able "Retrospective Address in Surgery, delivered in July, 1839, before the Meeting of the Provincial Medical Association at Liverpool, by J. P. James, Esq., Surgeon to the Devon and Exeter Hospital," I find my opinions and statements are referred to in a flattering manner: and I understand they have also found a place in the Retrospective Address of Mr. Dodd, of Chichester, delivered this year at Southampton.

Even had I not entertained the intention, when I first published my little work, of giving more at length and in detail the conclusions—then only very briefly stated—with all the facts upon which they are based, I should have found sufficient inducement, in the favourable notice the profession still bestows upon my past labours, to do so now.

The concluding lines, however, of that work pledged me to undertake, at some future day, the task I have now completed. It has required much time and labour, by analysis and classification of cases in numerous series, to demonstrate to others the correctness of many views, at variance occasionally with those most generally received, but which I, nevertheless, felt firmly convinced were both true and important.

It was necessary to arrange each series of cases so as to show distinctly their bearing not only upon my own views and conclusions, but upon the opinions and principles of practice advocated by those who have taken a prominent part in the attempts of the profession to establish the principles that should guide us, on correct and unalterable bases. In reference to injuries and diseased actions which require and warrant amputation—the period best fitted for the operation, the supervening actions which endanger or destroy life under the great variety of circumstances arising from degrees and kinds of injury—different modes and periods of operation—differences of temperament, age, climate—of external and collateral circumstances—these are all required to be kept in view as

objects worthy of investigation, and requiring to be tested and proved.

It would be out of place in a series of lectures devoted to investigations and objects of a strictly practical nature, to trace back the history of amputation, or to show what the opinions of surgeons were on the subject under consideration, a century ago. My duty is to bring before the profession the opinions of the present day—taught and acted upon as established principles of practice—to inquire how far they are founded upon correct premises—with what errors they are chargeable—whether these extend to the *conclusions* on which modern practice is founded. Finally, to trace the ultimate consequences of these conclusions upon the various classes of amputations, and severe injuries or diseases affecting the health and safety of the limb in the first instance, and subsequently the life of the patient.

It may appear to some, on glancing at the title of these lectures, that to write on the subject of amputation—on the relative value of primary and secondary operations, &c., is "*precher a la conversion*;" that the questions have been long and definitively settled, the injuries for which amputation should be employed fully determined, &c.; that, in a word, any farther facts, opinions, or arguments on these and all other points connected with amputations are superfluous, and the labour a work of supererogation.

I say this may appear to others, for I went to the field myself, fully relying upon the "settled questions," determined to have no secondary amputations if I could avoid it, and no delay in operating on cases where I could not entertain a well-founded hope of saving a useful limb. With such strong prepossessions and firm belief in what I had been taught in the schools, I entered upon my responsible duties. It was not long before many results first surprised and then startled me, creating very serious doubts in my mind. Primary operations, followed by death, which, according to my guides, should have lived; secondary amputations giving cases of recovery under the most disheartening circumstances. I felt it absolutely necessary to penetrate the cause of these seeming contradictions, which unsettled all my previously-formed convictions. In labouring to dissipate them by careful observation where opportunities were abundant, at the bedside, and subsequently by reflection, searching either to confirm the truth and correctness of the premises and conclusions on which I had previously acted, or prove them to be erroneous, I satisfied my own mind at last. It may be useful to anticipate similar doubts in the minds of those who may have to decide the questions *practically*, as I had, for the lives and limbs of their fellow-creatures; the doubts and the grounds for them; the series of facts, and the reasoning which wrought in me conviction, I propose to bring forward in these lectures; con-

* Notes on the Medical History and Statistics of the British Legion in Spain: Churchill, 1838.

vinced that by facts most carefully sifted and by reasoning, should the questions incident to the subject of amputation be decided; and not by rapid generalizations, loose analogies, and unhesitating assertions or opinions. In the progress of my inquiries, the first satisfactory conclusions obtained, though tardy, were of a nature to lead rapidly to many others; viz. 1. Many of the leading conclusions on which authors had framed the rule of practice were drawn from false premises, and proved occasionally to be as erroneous as the data. 2. That even where the conclusions were correct, they were often so by mistake, if I may be allowed the expression; that is, they were illogical, and in reality inconsistent with the premises on which they were supposed to be founded. 3. That the advocates of each set of opinions frequently contradicted themselves, and even others. These statements will be reproduced in detail, and amply borne out, by individual facts as by general results, in the course of these lectures.

The various questions connected with amputation, so long agitated, so warmly discussed, for more than half a century, are yet to settle definitively, and the present observations are offered as contributions towards the effecting so desirable an object. Although Sir George Bellinghall, in his last edition (in 1838) of a valuable work on Military Surgery, seems to consider all the more important questions finally determined, yet he passes in review many points on which he cites opposite opinions, and others where he specifies a want of sufficient evidence. Thus, p. 368, "I know of no comparative estimate of the results of amputations performed by the circular incision and by the double flap, which will enable us to decide their respective merits by the test of experience." This is the latest writer on the subject.

The general tendency of very recent writers, such as Gendron, Hayward, Norris, and others, who have given opinions and the results of their experience to the profession, is in direct opposition to the doctrines taught by the majority of surgeons in the French and English armies, at the close of the great continental wars in 1815. Even at that period, Guthrie, Hennen, and Thompson, who gave the results, and may be considered in some sense as the medical historians of the British army-practice; Mr. Hutchinson and Sir Stephen Hammick, in a similar sense, of the navy; and Barons Larrey and Percy, of the French army, together with several authors of more fugitive productions in both countries, differed essentially; although the general purport of their labours presented something of unanimity in reference to the advantage of the primary period for amputation; yet they widely diverge from each other, sometimes as to premises, and at others in conclusions. The whole of these writers succeeding

Vaure, Le Conte, and John Hunter, who had maintained opposite doctrines.

The tendency of most of the writers for the last few years, as I have stated, drawing their facts chiefly from civil hospitals, is again to support the views, to a certain extent at least, of John Hunter, and others of his period.

This glance, I think, may suffice to show, that neither the one set of doctrines nor the other have yet been based upon irrefragable evidence; and, indeed, in reference to many points, we have the opinion of the writers that there was a want of data. Dr. Thomson, who may be considered, in his observations on some six thousand wounded, resulting from the battle of Waterloo, to give the last results of British military practice, although by *opinion*, he confirms the same general tendencies, records a fact subversive of our confidence in the only numerical results on which the opinion was founded. He says, p. 226, "The results of the amputations performed in Belgium might, on the whole be said to be successful, though it certainly was not equally so with that which is stated by M. Larrey and Mr. Guthrie to have been obtained in some other countries; and what is curious, *this comparative want of success was more remarkable in the results of primary than of the secondary amputations.*"

Again, p. 241, "It may be doubted whether the practice of immediate amputation would be proper or necessary in all these cases, could the wounded be conveyed directly into convenient hospitals, in which they might remain during the period necessary for their recovery; *for we have no data by which it is possible for us to judge very accurately what proportion of them would recover without amputation; how many would require amputation at a late period, and of those in which recovery should take place; in what proportion the limbs would be useful, or remain useless and troublesome.*" In reference to fractures of the thigh, also, p. 249, "A series of observations, much more extensive than any we yet possess, will be required, in order to enable us to determine what is the usual proportion of those who recover from fractures of the thigh-bone in its different parts by musket-bullets, and of those recovering who have suffered gun-shot fractures of the thigh-bone."

But independent of these admissions of the want of correct and accurately-classified data, by the chief writers of the year 1815, who, coming after Hunter, Percy, and Lombard, directed their whole efforts to refute the doctrines taught by the latter, the inconsistencies and contradictions evident in the premises and conclusions of the various writers of that period, who undertook to prove their predecessors entirely wrong, are in themselves sufficient to render it clear that, although they each may ultimately come to nearly somewhat similar conclusions, yet there are contradictions which must go far to neutralise or nullify the otherwise convincing unanimity of decision.

One great error runs through the discussion maintained by the advocates for delayed amputation on the one hand, and the later writers who reprobated such practice on the other; and as they are both sufficiently obvious, implicit faith could not be placed on the opinions of either party by any impartial observer.

While Vaure, Le Conte, Hunter, &c., insisted upon the fatal consequences of a second shock to the system by amputation immediately after an injury, exaggerating, or too widely generalising the effects immediate and remote, they partially forgot the inevitable evil consequences, of a limb irremediably injured, remaining attached to the body, and provoking the most fatal actions, inflammatory and sympathetic. The other party who succeeded them, Larrey, Guthrie, Huchinson, &c., erred not less by denying or overlooking the fact, that there is a second shock occasioned by amputation, and that it does and must increase the immediate chances of death, and substitute one train of accidents for another. Thus De la Martiniere says, "*L'amputation faite a propos ne peut pas être regardée comme une entreprise téméraire qui ajouterait de nouvelles sources d'accidens a ceux qui tourmentent les blessés puisque on ne fait que substituer une plaie aussi simple qu'il est facile de la procurer.*" Not a word of any shock or danger attending the amputation! Again, Mr. Guthrie, following in the same track, says, "Instead, then, of inflicting an additional injury on the original one, and increasing the general symptoms of irritation in those persons with extensively lacerated and complicated wounds, they were completely relieved, became calm, tranquil in mind and body," &c.

Whether amputation quickly following a wound *increase* the general symptoms of irritation, or not, may be a question; probably, in the worst kind of cases, it may not increase them; for the injury itself would produce the worst; and, moreover, the very shock itself will often act by exhaustion as a sedative. But, even in these cases, if it do not increase them, certainly very often it does not prevent the development of an irritative fever, and symptoms, and effects, apparently depending on the double shock to the nervous system, which are fatal. It cannot seriously be disputed, that amputation *is an additional injury and a shock*, not inferior, in many instances, to the original one inflicted by the injury; and that it is impossible to "*substituer une plaie aussi simple*," without causing a violent and dangerous shock.

Mr. Guthrie himself, in another page, says, "I allow amputation to be a violence superadded to the injury—a violence that occasionally destroys the patient. But it as frequently does so after secondary as primary." It is equally capable of demonstration, that there is a train of dangerous symptoms attributable to the shocks of this operation—where no other injury or shock had been received—however easily and simply the clean incised wound may be

substituted for a lacerated limb. How is it possible to rely upon the conclusions of partisans, so eagerly bent on proving opposite principles, that they each overlook most essential and important features, or overlook at one moment what they bring forward at another.

But they are not even consistent, for De la Martiniere, alluding to the prevalent cause of ill success in primary amputations, seeks to explain it in part by means subversive of his previous opinion—he says it is to be attributed, "*a la peu abondance des forces des blessés, aux dispositions inflammatoires, a l'irritation du genre nerveux;*" and he proceeds to add, that in effect we do observe them when amputation is performed at a much later period, when the system has been reduced, &c., the patient is *less liable to these perilous accidents*—that is, when a single shock is only suffered instead of a double one. If we turn, however, to Larrey on the same side, he gives, as the result of his latest experience, viz., of the wounded of July, 1830, and as confirming all his former opinions, the statement, that "secondary amputations have generally been followed by violent *orages*." Both cannot be correct for they are diametrically opposed to each other.

Boucher, again, the refuter of the opinions of M. Vaure, speaking of M. Vaure's success in ten different amputations, says, it only proves that the state of weakness which is not the result of deterioration of the solids and vitiation of the fluids, as it frequently is in such cases, *is more favourable to amputation* than a state of greater vigour—the very point M. Vaure maintained.

Mr. Guthrie, in speaking of the same subject, argues that the reaction of the constitution producing high inflammatory fever, can be more readily suppressed, and with more safety to health, than an irritable constitution; he contradicts Boucher, and at the same time seems to forget altogether the fact about stated inferences as a matter of course, that in any actions supervening on secondary amputation we have to struggle against an "irritability of constitution." But there lies the question—are all cases reduced by discharge, irritable? Certainly not; and here is a proof of contradiction between two advocates of the same general conclusions, and of logical deduction, from what I must believe to be erroneous premises. Instances such as these are most frequent throughout the writings on this subject. Mr. Guthrie concludes by saying, "that as the military surgeons of Mr. Hunter's time supported one side of the question, and the military surgeons of 1815 supported the opposite, one party must certainly be in error." This seems very undeniable; but, nevertheless, the truism is more apparent than real. It seems to me, and I trust to be able to prove, that the conclusions of both parties are frequently based upon false premises; while at other times very opposite conclusions are drawn from the same data; that

enlightened by some experience, and with a mind duly prepared, no one can proceed to analyse the opinions supported by the two parties, without perceiving that erroneous data, arguments, and conclusions abound in both; that sometimes the two parties nearly agree, though from apparently dissimilar premises, while they as widely differ in other instances from the consideration of similar facts; that each party abounds in contradictions and inconsistencies of the individuals with each other, agreeing, even occasionally, with few opinions sustained by their adversaries. Thus, to take the works and data furnished by all sides, it would be impossible to form anew a natural division, according to the opinions, into two opposing classes of authors. In some instances, the nominal advocates for delayed amputation will be found supporting opinions, and bringing forward facts, which, duly estimated, are strong evidences in favour of primary, and *vice versa*. Where so much of truth and error seems to abound with contradictions and inconsistencies, it cannot be matter of surprise that, notwithstanding the results of the last continental war have been held by superficial inquirers to have settled the question between the advocates of opposite opinions in relation to amputation, the question should still be perpetually recurring in practice; these very inconsistencies, errors and contradictions, becoming evident at the bed-side, and destroying all confidence in the most stoutly maintained opinions of either side.

If we required any proof of this feeling, as a general result of practice, and the study of the facts and opinions of these writers on both sides, we shall find it in the general tenor of the majority of the contributions to our knowledge of the history and progress of amputations which have appeared within the last ten years in Germany, in France, in America, and in England. The tendency of all, with few exceptions, is to re-open the discussion, expressing doubts of the correctness of the prevailing opinions established by the writers of 1815, and showing a disposition to return rather to the convictions of the authors preceding those, viz., of John Hunter's time, the purport of whose opinions were held to be diametrically opposed. This assumption, however, being only partially correct, for many of the points which have been most strenuously maintained by the former, were already conceded by the latter.

Enough, I think, has been shown to prove that the endeavour, on my part, to analyse the sources of this confusion in premises and conclusions, and by the aid of a new series of observations in the field and in the hospital, to point out the inconsistencies and contradictions, eliminate errors, and draw from correct premises the legitimate conclusions that should form our guides in practice, is not a work of supererogation. In any set of principles, when-

ever an inconsistency or a contradiction appears, its tendency must be to unsettle the conviction on which we had previously relied. Unless the conclusions affecting the questions of amputation are placed on proper bases, they will always be liable to change and subversion, even though they may be essentially correct; any errors, founded either in the premises or deductions, must necessarily tend to unsettle opinions on this momentous subject, and give rise to a vacillating, uncertain, and erroneous practice.

Many of the data which writers had indicated, as wanting to enable them to form an accurate judgment on some points of practical importance, I hope to be enabled to supply. The comparative results of amputations (at the three different periods, first defined by Boucher) in *civil* hospitals, for injuries resulting from the accidents of civil life; and these, again, compared with the results of amputation for chronic diseases, have never been, so far as I know, more than guessed at. This is a desideratum, I trust, also, to accomplish, to a certain extent at least.

No question of greater importance ever comes before the surgeon, and, in a military practice, none more frequently, than that of the propriety of attempting to save a lacerated and fractured limb; or the necessity, on the other hand, of at once removing it.

It is not a mere question of limb, but of human life and suffering. To attempt to save a limb when useful cure is hopeless, in a large proportion of cases ends in the death of the patient, after weeks, or months, and occasionally years, of fruitless pain and misery. To amputate, where by more judicious surgery an useful member might be saved, is to inflict a grievous and unnecessary loss upon the patient, besides subjecting him to the perils of an amputation.

More need scarcely be said, to show how interesting is the field of surgery,—how important the results, and especially how valuable are accurately-recorded facts on which we can rely, to form a judgment of the nature, progress, and gravity of the supervening actions, on amputation performed at different periods,—for different kinds and degrees of injury or disease; and these, again, under different external and collateral circumstances.

That such data have long formed a desideratum, and the want of them been often experienced, the very cursory glance already made through the records of military surgery, have shown.

Nor can it be matter of surprise, that even the late continental wars should not have enabled the respective medical staff to furnish these data. Something more than zeal and talent on the part of the medical staffs,—than many battles and their proportionate number of cases,—nay, something more even than commodious and well-regulated hospitals, is required to ren-

der the collection and accurate arrangement of such facts, in a complete form, possible. It is necessary that when the wounded are received, they should remain till the result of the cases is established, under the direction and observation of the same medical officer. It is not less necessary that the zeal and number of the medical staff, at the chief officer's disposal, should be adequate to the daily record of detailed notes in every case presenting features of interest, as regards the individual, or as forming one, however uninteresting in itself, of a class. At the same time, the number under treatment at one time, should not be so great as to prevent the superior medical officer comparing and superintending notes and cases; thus becoming responsible for the correctness of the former, and able to speak of all with the weight and the conviction of personal observation.

It may be said, and indeed it was urged by one of my critics, in 1838, when I pointed out the importance of these conditions, that such a combination of favourable circumstances for study and observation could never be obtained. I have it at heart, to prove that I contemplated no impossibility. That such opportunities must be rare, I am ready to admit; and most rare, when the war is carried on by the largest armies, and over the greatest extent of country; for under these circumstances, the constant change of wounded from one station to another, the fearful influx of numbers at particular periods, all contribute to render the attempt to record facts, in complete series, impossible.

Such opportunities, in truth, can only occur when an army is in lines, defending them for a considerable period against repeated attacks, and the hospitals in permanent stations near at hand, or in a beleaguered city. In seven years' active service in the field, there is only one period extending through any length of time, where I was placed in a condition to collect, with the necessary accuracy and completeness of detail, *whole classes and consecutive series of cases*, although I had previously been nearly a year in a besieged city. In Oporto, however, some of the conditions were wanting, and thus, to a certain extent, defeated my efforts. The facts of interest collected in the hospitals under my charge at that time, are indeed numerous; yet, with the exception of one or two of the more important classes, of which amputation is one, I am not sufficiently assured of their including all the cases to venture to make use of them otherwise than in an isolated form.

If a series be given, and there be one omission, the result is incorrect. With this truth before me, I have taken care, in the statistical returns constructed for these lectures, to confine the number of fractures, involving and not involving articulations, which were submitted to treatment and not amputated, to those which occurred at San Sebastian, in the years 1836-7. The whole of such cases are thus included,

which resulted from all the actions fought within a given period in the vicinity of the lines formed to cover that fortress.

These cases were all received into the Hospital of San Telmo, of six hundred beds, treated under my own personal direction the whole period, with a numerous, efficient, and zealous medical staff, to carry out my views. Most of the actions were fought within a league of the hospital, the greatest distance three leagues, and the wounded were generally received within a few hours after they had been injured and there retained. The hospital was vast, well ventilated, and admirably situated, supplied with good diet, medicines, and all essential requisites for treatment.

In reference to the amputations, however, these, forming a class of their own, extend over many additional periods, wherever I could feel assured that my records comprehended the whole number of any given series. Thus, the statistical returns to which I shall direct attention in these papers, which give some of the results of my own practice, include one hundred and seven amputations; a number, it may be urged, too small to determine any important question conclusively in the minds of the profession. It may be so; but having watched not the progress of that number only, but more than two hundred in addition, and obtained convictions which I find are confirmed by the results of these series, each complete, I cannot but think views so supported may be worthy of attention. The amputations comprised in the tables include all arising from the British wounded in

Nine attacks and sorties at Oporto;

One action in Estremadura;

Nine in the North of Spain;

And there is one circumstance attending these cases which adds to their value,—all the wounded of each series were under the same general conditions of distance from the hospital, mode of transport, under the same general principles of treatment, and for the most part under the same roof; the majority natives of these islands, and ranging about the same age—from 20 to 30 years of age, artisans and peasants—all, therefore, are analogous in many essential features.

	No. of Cases.	No. of Amput.
1. Gunshot fractures, not implicating joints,	167	60
2. Ditto, involving the articulations,	97	49
3. Cases of spontaneous disease leading to amputation,	8	8
	272	117

The total number of cases, therefore, is 272, the amputations amounting to 117, upon which are founded the various conclusions. The two first classes are exclusively the casualties of

military life. In order to complete the task I proposed for myself, I have formed two tables; one of all the amputations occurring in the Massachusetts Hospital, from its formation in 1822 to the end of '39, a period of 17 years. The second contains all the cases performed in the hospital of Pennsylvania, from Jan. 1831, to Jan. 1840. I have further separated these classes into injuries and diseases. The materials of these tables are furnished by the North American Journal for August, 1838, and May, 1840; the first by Dr. Hayward, one of the surgeons of the Massachusetts Hospital; the second by Dr. Norris, also one of the surgeons of the Pennsylvania Hospital. Dr. Norris gives us 79 cases; Dr. Hayward, 67. The returns of Dr. Norris and Dr. Hayward leave no doubt in my mind of their completeness as to numbers and accuracy. I speak of the results which they show, therefore, with the same confidence, so far as their details extend, as I do of those which I myself have recorded:—

109 Amputations for gunshot injuries, and
145 Civil injuries of civil life, or chronic diseases;

254 Gives a fair number on which to draw conclusions.

Of the general results furnished by Mr. Phillips, in the "Medical Gazette," they may contain complete series; but as there is no evidence that they are not imperfect in this sense, collected in fragments from many sources, I do not feel warranted in taking any of the numbers as good and sufficient evidence in deciding questions where the omission of an unit, or a single case in any series, will invalidate the total result and the legitimate conclusion. The same reasoning holds good with the large return of the British Peninsular army during the last six months of 1813, setting aside the absence of very essential details. I think it more than doubtful how far one may depend upon the *whole* that occurred over the whole breadth of Spain were included, or what modification any omissions might have occasioned.

The circumstance to which I have alluded, viz., the exceeding rareness of the opportunity of collecting such information as I have classified in a continuous and complete form, must add to the value, if the facts be shown to be accurate. And with respect to these, I may add that I have been more anxious to furnish data worthy of confidence, on which others might reason, and from which they may draw their conclusions, than to enforce the views and opinions I shall state as the result of my own mind.

The time which has elapsed since I first announced the intention I now carry into effect, is in itself a proof how serious I have considered the nature of my task, and that I shall not intrude on the profession any hastily formed

conclusions, but facts carefully analysed, and opinions maturely weighed.

I have already stated the object I have in view, viz., to determine, by a consideration of all the facts connected with the subject, the true principles of practice, MILITARY and CIVIL, in all complicated injuries of the extremities, and especially in reference to amputation, the periods and modes of performance. To fix these principles on a solid basis of facts and legitimate deductions, that they may be less open to doubt, and less liable to be subverted, than those existing, because freed from their contradictions and inconsistencies; finally, to render those principles applicable to the question of amputation for chronic disease, showing their bearing upon the latter class of cases by comparative results.—*London Lancet*.

Case of Abscesses occurring in the Brain.
By R. BOYD, M. D., Resident Physician.—Mary S., aged nineteen, admitted into the St. Marylebone Infirmary, in the last stage of phthisis, states, that she has been subject to spitting of blood, on making any exertion, for the last eleven years, and has been getting gradually worse for the last three months; the spitting of blood during the last week amounted to about three pints. Her mother died under my care of phthisis about three years ago, at which period this girl had medicine prescribed for her, of which, or of her symptoms, no note was taken at the time. I am indebted to Dr. Harrison (whose patient she was in the infirmary) for the following brief note of her symptoms on admission:—Pulse rather quick, jerking, compressible; skin hot; tongue whitish; bowels open, though usually confined; catamenia ceased four months ago; severe headach during the last three days; nausea for the last week; vomited this morning some greenish-coloured matter. On examining the chest, a dull sound was elicited by percussion under the right clavicle, with considerable flattening of that region, &c. During the two following days the headach became progressively worse; considerable excitement now existed, and she often shrieked out from the intensity of the pain; the vomiting still continued; pupils slightly dilated; following day more composed; pain less acute; seemed afraid to move her head from the pillow; spoke in an under tone. The next morning little apparent change; she could get out of bed without any assistance when she had occasion to do so. About half an hour after this she died quite tranquilly.

Autopsy twenty-five hours after death.—Head only to be examined. On removing the dura mater slight cohesion was found to exist betwixt the surfaces of the arachnoid, which presented a dull, glazed appearance; it communicated to the touch a feeling of dryness, with unctuousity; the convolutions appeared flattened; veins considerably distended with blood. On the superior, posterior, and outer portion of the

left hemisphere was observed a deposit of purulent matter, as large as a shilling, extending into the substance of the brain; the anterior half of the body of the lateral ventricle was filled with pus, streaked with blood. On examination a deposit about the same size as the first was found in the inferior and inner portion of the corpus striatum; a smaller deposit existed in the inferior, anterior, and outer portion of the left hemisphere; and a fourth, still smaller, was found in the cortical substance of the upper and anterior portion of the right hemisphere. On the surface of the arachnoid, at the junction of the pons Varolii, with the medulla oblongata, there was a yellowish deposit, probably the result of inflammatory action. The interior of each of the cavities containing the purulent deposits seemed to be lined with a distinct membrane; that lining the small cavity in the cortical substance was smoother than those of the others, which were all more or less irregular in their interior, especially that in the corpus striatum, on the inferior surface of which there were some enlarged vessels, and the pus in this situation was mixed with a little blood. The matter in all the cavities, on examination, presented the characters of healthy pus.

The symptoms of cerebral disturbance were only complained of eight days before death, and they did not arrive at their height till forty-eight hours before that event, when she presented all the symptoms of a person labouring under acute arachnitis. I recollect a male insane patient under the care of the late Dr. Sims, exhibiting very similar symptoms, followed by death; he said, at the time, we should probably find a dryness of the arachnoid membrane. The post-mortem examination proved that his opinion was correct. The late Dr. Hooper of this institution has recorded a few cases of a similar nature. The works of Morgagni, Portal, Baillie, Abercrombie, &c., furnish several examples. A case occurred in the practice of this infirmary of abscess in the pons Varolii, which was exhibited by Mr. Obre at one of the early meetings of the Pathological Society last season. *Vide Lancet*, March 28, 1840. Such cases are, notwithstanding, very rare, only two or three examples of it having occurred out of many hundreds of examinations of cerebral complications made at this infirmary during the last six years. Cerebral symptoms, at the termination of phthisis, are by no means uncommon; from an analysis of fifteen cases of that disease which were examined here during the autumn of 1839, it appears two cases were attended with delirium: in one of these there was softening of the septum lucidum, and about three ounces of fluid in the lateral ventricles; the other case also contained a somewhat smaller quantity of fluid in the lateral ventricles. Dr. Clendinning, in one of his clinical lectures here last year, related the case of a young man who was admitted into the infirmary in a state of delirium, and complaining, by va-

rious intelligible gestures and cries, of intense pain of the head, without coma or affection of the pupils, and making no other complaint, nor seeming to suffer at all otherwise. He was wasted, and had a slight cough, without expectoration; dulness, on percussion, and depression of both subclavian regions. The restlessness of the patient prevented satisfactory auscultation, but the case needed no further light than that elicited by the fingers for decisive diagnosis. After ten days or a fortnight he sank. The brain and membranes were congested, and pure serum, amounting to above two ounces, existed in the ventricles; the convolutions moderately flattened. There was no pus, or lymph, or thickening, or other unequivocal evidence of inflammation in the head. Large excavations existed in the apices of the lungs. The closing scene of other chronic diseases are also occasionally marked by delirious excitement, resembling that of arachnitis: it often happens, in such cases, that we are unable to detect any alteration of structure, and have to rest satisfied with denominating it a functional derangement.—*London Lancet*.

Case of Varicose Aneurism terminating fatally.—A peasant, aged forty, was admitted into hospital on the 9th of December, with a varicose aneurism at the bend of the left arm, which had appeared a few days after venesection. A compressive bandage was applied for twenty-two days round the whole arm without advantage. On the 1st of January the brachial artery was tied according to Anel's method, and the operation was followed by the ordinary symptoms until the fifth day. At this period gastric symptoms set in; and the arm swelled to such a degree, that the aneurismal tumour, which was as large as a hen's egg, could no longer be distinguished. The wound began to suppurate copiously; and an obstinate diarrhoea terminated the sufferings of the patient on the 21st of January.

Dissection.—The brain, lungs, and intestines, showed traces of inflammation and accumulation of purulent motion. The tied artery had suppurated, both above and below the ligature. The coagulum was of a conic shape; and close to it, as is usual in such cases, lay the sac of the aneurism. When opened, it displayed a double cavity, which appeared to have been formed at the expense of the cellular substance situated between the artery and the vein.—*Zeitschrift für die gesammte Medicin, from the Jornal da Sociedade das Sciencias medicas de Lisboa.*

BOTH TO BLAME.—"Tis a pleasant and witty saying that Plutarch says Democritus was wont to have, viz. "that if the body and soul were to sue one another for damages, 'twould be a question whether the landlord or the guest were most faulty."